



Price \$1.00

November 1982

SATURDAY, November 20, 1982

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- by Don Wilcox -

PUZZLE # 4

PROGRAM REVIEWS

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Our education, Linda Scott with the assistance of Don Wilcox with present the second intermediate level basic class. Sharpen your programming skills. Classes begin at 3PM.

Dial 352-2772 between 11PM to 6PM the following day and say hello.

At this months meeting we will raffle off a VOICEBOX(tm) by The Alien Group. Valued at \$169, it plugs into your ATARI's serial port and talks directly through your TV.

Raffle tickets are \$5 and may be purchased at the next meeting. The drawing will be held at the end of the October business meeting.

The proceeds will be used by the club to expand our club library.

TRAPPING YOUR ATARI

by Don Wilcox

It is often frustrating to be forced to restart a software program because an inadvertent error caused the program to crash. ATARI BASIC provides a special word -TRAP- that often can be used to prevent a program from ending before intended. Many errors are subject to automatic correction or compensation through a little extra effort on the part of the programmer.

This short article presents some common errors that can be prevented with a few extra lines of code. After perusal of these five examples, you should be able to understand how to make your programs less vulnerable to errors that prematurely end your program.

PROGRAM ONE - If you mistakenly create a new file using a file name that already exists, you will destroy the already existing file. No error message will warn you of the impending disaster. Program ONE will prevent this.

PROGRAM TWO - If you try to OPEN a non-existing file, you will get error message - 170 and your program will crash. This can be prevented by using Program TWO.

PROGRAM THREE - If you try to input data from a disk file beyond the end-of-file, you will get error message - 136 and your program will terminate. You may not always know beforehand where the file data ends, so an automatic end-of-file trap can be programmed easily to prevent error 136. Program THREE will solve this problem.

PROGRAM FOUR - You forgot to turn on your printer or interface unit and get error message - 138. If you attempt to use the CONTINUE command after you turn on the correct unit, your program will continue beginning at the line number that follows the line that caused the error. Often this can create erroneous results (not always detected) because the instructions on the line that caused the error may not have been executed correctly before the error.

PROGRAM FIVE - You are reading in data with a READ statement and you do not want to use an end-of-data dummy value as a flag nor do you want to count the entries to determine when all data has been read. Program FIVE demonstrates a simple method to prevent error #6 (out of data) from prematurely terminating your program.

Finally, for those of you who are relatively new to ATARI BASIC, there are several locations (addresses) that you may PEEK to find out which error occurred and which line caused the error. Location 195 contains the error number. Locations 186 and 187 contain the line number where the error occurred, low byte, high byte respectively. To display this information on your screen, use the following statements as one method.

```
10 REM DISPLAY ERROR NUMBER AND LINE NUMBER OF ERROR
20 PRINT PEEK(195); " AT LINE "; PEEK(186)+256*PEEK(187)
```

Happy trapping in your future programs.

(continued next page)

PROGRAM ONE

```

100 REM PROGRAM ONE
110 PRINT "(CLEAR)":CLR:REM CLEAR SCREEN WITH - PRINT"ESC, CTRL/CLEAR". CLR CLEARS VARIABLES AND DIMENSIONS
120 REM PREVENT ERASURE OF FILE ALREADY STORED ON DISK
130 DIM ATRAP$(6),A$(124),NAME$(8),FILE$(10)
140 REM SET UP DISK SUFFIX 'D:' FOR FILE NAME. IOCB IS FILE(DEVICE) NUMBER. IN=4 IS THE INPUT MODE
145 FILE$="D:":IOCB=2:IN=2:GNU=8
150 REM GNU=8 IS THE CREATE MODE
160 SET=160:CLOSE #IOCB:IF ATRAP$="SPRUNG" THEN PRINT " FILE NAME DID NOT PREVIOUSLY EXIST":GOTO 200
170 TRAP SET:PRINT "KEY IN FILE NAME"
180 INPUT N #IOCB,IN,0,FILE$
190 PRINT FILE$;" ALREADY EXISTS":PRINT "USE A DIFFERENT NAME":CLOSE #IOCB:GOTO 170
200 OPEN #IOCB,GNU,0,FILE$
210 PRINT FILE$;" OPENED SUCCESSFULLY"
220 CLOSE #IOCB

```

PROGRAM TWO

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100 REM PROGRAM TWO
105 PRINT "(CLEAR)":CLR:REM CLEAR SCREEN. PRINT "ESC CTRL/CLEAR". CLR CLEARS (ERASES) ALL VARIABLES AND DIMENSIONS
110 DIM ATRAP$(6),NAME$(5),FILE$(8)
120 REM SET UP DISK SUFFIX FOR FILE NAME. IOCB IS THE FILE(DEVICE) NUMBER. IN=4 IS THE INPUT MODE.
130 FILE$="D:":IOCB=2:IN=4
140 REM WRITE ERROR IF TRAP IS SPRUNG. IT IS GOOD PRACTICE TO CLOSE FILES TO PREVENT ERROR #129 IF YOU LOOP BACK
150 REM TO A PREVIOUS PART OF YOUR PROGRAM THAT OPENS A FILE.
160 SET=160:CLOSE #IOCB:IF ATRAP$="SPRUNG" THEN ? "ERROR 170, FILE ";FILE$;" NON-EXISTANT":FOR D=1 TO 400:NEXT D:GOTO 100
165 REM KEEPS MESSAGE ON SCREEN TEMPORARILY BEFORE RETURNING TO BEGINNING OF PROGRAM
170 TRAP SET:PRINT "TYPE IN FILE NAME":PRINT "DO NOT INCLUDE 'D:' PREFIX":INPUT NAME$
180 FILE$(3)=NAME$:REM CONCATENATES FILE NAME ONTO DEVICE PREFIX 'D:'
190 ATRAP$="SPRUNG"
200 REM IF THE 'OPEN' STATEMENT WORKS, WE HAVE A VALID FILE NAME ALREADY STORED ON THE DISK READY FOR INPUT
210 OPEN #IOCB,IN,0,FILE$
220 PRINT "FILE ";FILE$;" OPENED SUCCESSFULLY"
230 CLOSE #IOCB

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MILATARI CLUB NEWSLETTER ADVERTISING POLICY

Short, non-commercial ads will be printed for members at no charge.

COMMERCIAL ADS will be printed for the following rates:
1/2 page = \$5.00 full page = \$10.00

All ads must be submitted by the first Friday of the month, be photocopy ready, accompanied by a check for the amount due.

* * *

NEWSLETTERS

Newsletters which are received from other groups will be cataloged in our club library and are available for any member at our monthly meeting. We are currently receiving newsletters from:

- the Atari Computer Association of Orange County, Ca.
- the Michigan Atari Computer Enthusiasts
- the Twincity ATARI Interest Group
- the ATARI Computer Club of Toledo
- the Waterloo ATARI users Group
- the Jersey ATARI Computer Group
- the Birmingham Atari Group
- the Austin Atari Computer
- the Houston Atari Computer Enthusiasts

We thank these groups for their participation in the newsletter exchange

PROGRAM THREE

```

100 REM PROGRAM THREE
110 PRINT "(clear)":CLR:REM CLEARS SCREEN AND CLEAR VARIABLES AND DIMENSIONS
120 REM CATCH END OF FILE ERROR
130 DIM ATRAP$(6),A$(124),NAME$(8),FILE$(10)
140 FILE$="D:":IN=4:GNU=8:IOCB=2
150 REM "D:" IS FILE NAME PREFIX. IN=4 IS INPUT MODE. GNU=8 IS CREATE MODE. IOCB IS DEVICE(FILE) NUMBER
160 REM FIRST WE MUST CREATE A FILE AND PUT SOME DATA INTO IT BEFORE TRYING TO READ THE DATA
170 PRINT "KEY IS A FILE NAME":PRINT "DO NOT INCLUDE THE 'D:' PREFIX"
180 INPUT NAME$:FILE$(3)=NAME$:REM CONCATENATES PREFIX AND FILE NAME
190 OPEN #IOCB,GNU,0,FILE$
200 REM WRITE DATA ONTO FILE
210 PRINT #IOCB;"FIRST"
220 PRINT #IOCB;"SECOND"
230 PRINT #IOCB;"LAST"
240 CLOSE #IOCB:REM IT IS GOOD PRACTICE TO KEEP A FILE CLOSED WHEN NOT USED
250 REM FAILURE TO PROPERLY CLOSE A FILE CAN CAUSE IT TO BE LOST
260 REM
270 REM READY TO READ FILE
280 OPEN #IOCB,IN,0,FILE$
290 SET=320:TRAP SET
300 REM READ DATA FROM FILE AND PRINT EACH VALUE AS IT IS READ
310 INPUT #IOCB,A$:PRINT A$:GOTO 300
320 PRINT "FINISHED READING FILE SUCCESSFULLY":CLOSE #IOCB
330 REM DELETE LINE 290 AND YOU WILL GET AN ERROR MESSAGE 136 END OF FILE

```

PROGRAM FOUR

```

100 REM PROGRAM FOUR
110 PRINT "(clear)":CLR:REM CLEAR SCREEN AND CLEAR VARIABLE VALUES AND DIMENSIONS
120 REM CATCHING DEVICE TIMEOUT ERROR # 138
130 REM YOU FORGOT TO TURN ON AN INPUT OR OUTPUT DEVICE
140 DIM ATRAP$(6)
150 SET=150:IF ATRAP$="CAUGHT" THEN PRINT "TURN ON I/O DEVICE"
160 TRAP SET:ATRAP$="CAUGHT"
170 LPRINT "PROGRAM RAN SUCCESSFULLY"
180 REM RUN THIS PROGRAM WITH PRINTER TURNED ON AND OFF
190 REM CHANGE LINE 170 TO USE DISK, INTERFACE OR SOME OTHER I/O DEVICE

```

PROGRAM FIVE

```

100 REM PROGRAM FIVE
110 PRINT "(clear)":CLR:REM CLEAR SCREEN AND CLEAR VARIABLE VALUE AND DIMENSIONS
120 REM READING DATA AND TRAPPING OUT-OF-DATA ERROR #6
130 SET=150:TRAP SET:REM DELETE THIS LINE AND ERROR #6 WILL OCCUR
140 READ N:PRINT N:GOTO 140
150 PRINT "FINISHED READING DATA"
160 DATA 20,4,156,83,12

```

FINI

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COMPUTER SOFTWARE**

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Waukesha, Wi. 53186
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WAUKESHA'S NEWEST ATARI SOFTWARE STORE

We carry software from several companies such as:

ATARI BRODERBUND SYNAPSE
SIRIUS ADVENTURE INTERNATIONAL

And many more

FEATURED ITEMS:

SEAFOX by Broderbund TRACK ATTACK by Broderbund DAVID'S MIDNIGHT MAGIC by Broderbund BANDITS by Sirius PICNIC PARANOIA by Synapse WAR by Adventure International GALACTIC EMPIRE by Adventure International HAZARD RUN by Artworx

COMING SOON:

New Graphics Adventures by Scott Adams LABYRINTH by Broderbund QUASIMOTO by Synapse CLAIM JUMPER by Synapse. Also new cartridges by 20th Century

We are in the process of organizing a used software exchange program. When we have debugged this exchange program, we will let you know. Call for details.

We are in the hobby business, and we want to serve you in the best way we can.

Our aim is to carry as much software as possible, however there is a catch. We need your support. If we can continue to move programs, it will be possible for us to order many more programs including the new quality programs just hitting the market, as well as the older classics.

Hardware is available on an order only basis at the present time, and if possible, we will order any item you may need if it is not in stock.

When you visit us please identify yourself and present your MILATARI membership card. You will be given a 20% discount off the retail price on software.

STORE HOURS

Mon Wed Fri	10-6
Tues Thur	10-5
Sat	10-3

Ask for Monica or Steve

PRESIDENT'S RAM

by Gary Nolan

Ah, November..... Month of the first snow, Thanksgiving and DEER SEASON. Which brings me to the first topic for this months column. It has been alternately suggested that we cancel this months meeting or change the date because deer hunting season starts that week-end. Well, the meeting will be held at the usual time on the usual day. Here's why (for you deer hunters). The third Saturday was chosen because it avoids the holidays. The policy for special events was set as follows; YOU GOES WHERE YOU GOES. Simple huh? Weather policy is almost as simple, whoever shows up on a bad day (snowstorm/severe cold) can either hold the meeting or go home. I would remind you that last January's meeting was held on a day when the temp. was somewhere around 20 below zero. And we still had 20/25 people show up, and not all of them lived in Waukesha.

A little advance notice. The User Group Computer Fair will be held on March 4-5-6, 1983. That's from Friday afternoon until Sunday night, at Brookfield Square. We will be asking for volunteers to do all kinds of things, from passing out flyers to manning the MILATARI booth. So volunteer now and avoid the draft. Please..

Some new products that sound interesting. #1: the ATR8000 is a double density disk interface unit that allows you to run CP/M on the ATARI. Yes THE CP/M!! Also allows you to run standard (note that word) 5 1/4" or 8" drives. It has a 4MHz-Z80 controller plus both a parallel and serial port. Comes with 16K (upgradeable to 64K) of printer/disk buffer memory. 64K is needed to run CP/M and OSA+ DOS, Ver.4 is required for double density. It comes from Software Publishers Inc. of Arlington, Texas. Prices start at \$500 for base unit. Product #2 is a printer buffer unit that will work with almost any computer/printer. It comes in several versions, parallel in/out, parallel in/serial out, serial in/out, serial in/parallel out, and memory sizes from 8K to 512K. It also has a copy feature that allows you to make as many copies as you need at the touch of a button. It's called MICROFAZER and comes from Quadram Corp., Norcross, GA. Prices start at \$169. Product #3 is from Mosaic Electronics and is a 64K RAM Select board for the 400. It has 48K of RAM with 4/4K banks, so that the 48K is continuous and 52K is always available, and a ROM cartridge does not affect the bank select. List is \$250. #4 is the Fastchip floating point rom from Newell Industries, and is said to provide up to 3 1/2 times the speed of the ATARI f-p routines. Cost is \$41.95 including ship/hand. with a 90 day warranty. Last but not least is a new light pen from SYMTEC, Detroit, MI and lists for \$150.

THE MILATARI BBS HAS MOVED!!.....Bill Simotti has taken over as SYSOP from Joe Kasper. And we'd like to thank Joe for giving of his time, system and phone line for the good of the club. Bill plans to keep the BB up as much as possible. But again remember that this is his only system and can't be up 24hrs. He will try to keep it up from at least 11pm until 5pm the following day, and as many hours between 5 and 11 as possible. All he can suggest is call and see if its up, he has a dedicated phone line which helps. Oh yeah, the number is (414)352-2772.

We're going to keep doing it until we get it right! So here we go again. All those interested in ordering (dare I say it) disks, be at the meeting or give me a call. Those who pay in advance will receive a better price than those who pay later. For now prices are not firm, but should be close to last time. Last time we ordered forty boxes, and they were gone almost as soon as they came in. Since we're ordering so many at once, we almost have to have payment in advance.

(continued next page)

Word has it that the new system printer for the ATARI will be the OKIDATA brand. I don't know which model. As for the new computer (if they even have one), pick a configuration, put a number designation on it and start a rumor about it. The latest is the 1000.

Thanks to Steve Schmidbauer (who?) for the following info.

ATARI has taken Commodore to court. No, not for copying the concept and design of the 800 (which they did in the 64). But for copying the joystick, do you believe it.

ATARI has appointed two new vice-presidents in the Consumer Electronics Division. John Brown will oversee sales to mass merchandisers (K-Mart, Toys R Us, Sears, ect.), while Lee Henderson will supervise dealings with independent retailers. Sounds like they're setting two sets of rules for selling ATARI's at the retail level.

Centronics lost \$18.3M for the fiscal year and \$24.5 for FY 1981. Maybe that's why ATARI went to Okidata instead of the 739.

For those of you who don't know Steve, he more than anybody is responsible for MILATARI being here today. I'll tell you more about the history of the group next month, as we celebrate our first (official, really second) birthday.

And while I'm thanking people, I'd like to thank Jim Steinbrecher (of the ARCADE BBS) for helping to get us started with the BBS, in more ways than one.

We hope to start another beginners programming class in Jan/Feb, if there is enough interest. Let us know at the meetings or give me a call. The intermediate classes are still being held before the regular meetings. We still need people to teach some classes. Pick a part of Basic you're good at, work up a presentation and contact Linda or myself and we'll schedule a time for it. We would rather have a lot of short (15/20 min) presentations than a few long ones.

The idea of the month. It's not new but here goes. Over the past months I've received several phone calls (maybe a couple) asking about the usefulness of different programs. And the thought occurred to me, that if every member wrote a review of the best and worst program he had, we could put together a MILATARI Software Review Manual. We could make several copies that would be available at the meetings, so members with questions about software would have some easy way of getting answers. These manuals could be updated continuously. We already have the software review forms. All we need is the reviewers, and they shouldn't be too hard to find (I hope...I hope...).

The cost of a 48K 800 just came down. Untill the end of the year you can buy a 48K 800 for the price of a 16K model.

Modem people..... Get your presentation ready for the November meeting. Short 5 min. ones will do. Check the BBS for others with your brand/type.

Have you seen the newest PACMAN watch? It has a tiny joystick on it, and it works!

They say that imitation is the sincerest form of flattery. APPLE has the Pineapple, Franklin Ace and Basis, Radio Shack has the PMC80 and ATARI has the Commodore 64.

BYE.....

DOCUMENTATION FOR THE AMODEM VER. 4 TERMINAL PROGRAM.

(Editor's note: The AMODEM4 program is available to all members from the disk library. It works very well with our bulletin board.)

The AMODEM4 program will permit the ATARI to access an RCPM BBS that runs under the CP/M operating system. Also SOME ATARI BB Systems. And allow ATARI to ATARI transfer. It features uploading and downloading at 300 baud and is extremely user friendly.

When RUN, it will go into terminal mode at which time the user should dial the BBS. Some systems are of the RING-BACK variety, so you should be prepared to let the phone ring ONCE. You will then hang up and re-dial 10-15 seconds later. When the system connects, type a few <returns>s until the BBS responds. Follow the HELP commands of the system from here.

TRANSLATION - SELECT T will toggle the translation mode between ATARI (No translation) and ASCII (Light translation). Use ATARI on ATARI Systems and ASCII on RCPM Systems.

MENU - For ATARI Disk systems, you may list your Menus with SELECT M. To find files or space for new files.

DUPLEX - For ATARI to ATARI file transfer, you will need Half Duplex Since AMODEM sends no echo. You may toggle it with SELECT P. NOTE; Use ATARI Mode on each end.

DOWNLOADING - To download from the BBS you must remember that it is controlled by a file called XMODEM. To have this file send a program to your ATARI, you must press <SELECT> key and type R to tell the ATARI to get ready to receive from XMODEM. You must then provide a FILESPEC to which the ATARI will save the program. This does not necessarily have to be the same name as the RCPM has it saved as. Once back in terminal mode, type the command; XMODEM S <filename.ext> and then RETURN at which time the XMODEM controller will respond with a statement that it has opened its file and is prepared to transmit to your ATARI. To begin the procedure, press the START key and sit back and relax. The XMODEM will send the file, which can be of any type. The screen will turn RED and when the file has been downloaded, your ATARI will save it to your filespec. When the screen turns back to BLUE, the process is complete.

TO UPLOAD - Reverse the procedure by pressing the SELECT and S keys to indicate you will Send to XMODEM the ATARI <filespec><RETURN>. Then type; XMODEM R <filename.ext> and RETURN which will tell XMODEM to prepare a filearea under that name to store the program you are going to send TO the BBS. To initiate the upload, press the START key and the computers will take over. Your screen will turn GREEN until the transfer is completed.

TO CAPTURE DATA - Press SELECT then C and enter a filespec. To start press the START or OPTION key. All data that you see on the screen will be saved to memory. You may toggle the capture on and off with the OPTION key. When you are done, or the buffer is full, you can press; SELECT and D. This will Dump the memory to your filespec.

(continued next page)

NOTE ABOUT ATARI <FILESPEC> You may use any legal ATARI Device and filename and type. Example; D:MYFILE.BAS or D2:YOUR.PGM C: or P: or R2: or E: Remember that you can't send from the Printer and you may send and receive using the Editor (E:).

Please leave any questions on the A.R.C.A.D.E. BBS at 313-978-8087 or Compuserve PEM-450: 70355,602 or write: Jim Steinbrecher
37220 Tricia Drive
Sterling Hts, Mi 48077

BRAIN PUZZLE

This feature will appear in the newsletter each month. Monthly, a new puzzle will be presented along with a review of the previous months' puzzle.

The puzzles are selected to show you ways to have fun and learn with your computer. The proper method to solve these puzzles requires the writing of a computer program to find the answer. To further encourage you, we will award the first winner of each contest a blank disk or tape - their choice!

At we would like (besides the right answer) is a few tidbits about how you solved the problem, such as: what language, how many statements, and how long did it take the computer to arrive at the answer.

The correct entry bearing the earliest postmark will be considered the winner. No entries accepted after midnight, November 30, 1982. All entries become the property of MILATARI. Winner will be awarded one blank disk or tape. In the event of a tie, more than one winner may be selected. Respond only by mail. No phone calls please.

Address your entry to:

MILATARI PUZZLE
P.O. Box 1191
Waukesha, WI 53187

PUZZLE # 4

THE TIME OF DAY

In her mathematics class, Professor Harrison was talking about interesting properties of integers. She showed the class the number 8,833 which equals $88^2 + 33^2$ and proceeded with her lecture.

As students are likely to do, clever Cleveland paid less than full attention to Professor Harrison's lecture and was, instead, watching the digital wall clock. He noticed that when Professor Harrison finished talking about 8,833, the time on the clock (viewed as a number without the colon) had the same property. That is, the square of the hours' digit(s) plus the square of the minutes' digit(s) equaled the number he saw.

What was the time of day?

PUZZLE # 3 WINNER

Congratulations to Karl Buschhaus for sending in the only correct solution to puzzle # 3. Karl, pick up your diskette or cassette at the next meeting.

Karl's program: (programmed in basic)

"To solve this problem I used an algorithm to compute the center, and then I separated the two digits on each side and then compared it to the original number."

```
5 L10=LOG(10)
10 FOR T=1000 TO 9999:IF C=T THEN 30
20 NEXT T
30 LPRINT "ONE REPEATING SQUARE IS ";T;" WITH A SQUARE OF ";S
40 NEXT T
```

ONE REPEATING SQUARE IS 2500 WITH A SQUARE OF 6250000
ONE REPEATING SQUARE IS 3792 WITH A SQUARE OF 14379264
ONE REPEATING SQUARE IS 7600 WITH A SQUARE OF 57760000

* * *

UNCLASSIFIED ADS

FOR SALE: ATARI MICRO-SOFT BASIC Atari's Micro-soft Basic Interpreter complete with manual. \$50.00 Dave Frazer - 542-7242 after 6PM

<=== PROGRAM REVIEWS ===>

PICNIC PARANOIA

reviewed by Monica Lukas

Synapse has another winner here. PICNIC PARANOIA is a fun filled, fast moving challenging game for all ages.

George takes you on a picnic complete with various picnic feasts. Usual pests, such as ants, flying wasps and spiders that spin webs are your mentors.

You have to protect your food from being carried away by ants, as well as dodging the wasps and spiders which will leave you with a red face when they sting you as well as a loss of time to catch the ants and destroy webs.

Armed with a bug swatter, 4 exits and some smart moves on your part, you can destroy the pests and when you score enough points, a can of bug spray is awarded to you for your efforts to be used when you feel like you're losing the battle.

The graphics are good and it's bound to keep you entertained, although you will question any thoughts about attending a real picnic of this sort.

Although the name doesn't sound exciting, think back on some of your favorites and their titles. This one has to be seen to really be appreciated.

HAZARD RUN

reviewed by Steve Charles

The people at Artworx sure made themselves a name with this one. Hazard Run is a superb action game for all ages.

The name is not deceiving. Those of you who have seen the smash TV hit *The Dukes of Hazard* should appreciate this one. As the driver of the General Lee, you must drive your way through a treacherous landscape and over nasty rivers and creeks. Trees, chickens, rocks, and other nasties makes your route a very twisted and wreckless one.

Although the graphics are not the kind of resolution you're used to from most of the new games, the graphic screens are so attractive that you hardly notice it.

Make sure you check this one out, it will be worth your while. Who knows, maybe there's a little Duke in you too.

BULLETIN BOARD
PHONE NUMBERS

Milwaukee area BBS systems

Name	Phone	Type
MILATARI	352-2772-L	AMIS
MAUDE	241-8364	
CANOPUS	281-0545	
ECE	367-8352	
VANMIL password "VANMIL"	271-7580	
SUE	483-4578	

(Game BBS's)

BIGTOP	259-9475
DATATECH	672-7932

Other ATARI Bulletin Boards

-	(404)252-9438	AMIS	Atlanta, GA
APOGEE	(305)238-1231-RL	AMIS	Miami, FL
-	(504)273-3116	AMIS	Baton Rouge, LA
ARCADE	(313)978-8087-R	AMIS	Detroit, MI
-	(312)789-3610	AMIS	Chicago, IL
GRASS	(616)241-1971	AMIS	Grand Rapids, MI
MADE	(313)868-2064	AMIS	Detroit, MI
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SB-12	(617)876-4885-L	AMIS	Boston, MA
SPACE	(206)226-1117	AMIS	Seattle, WA
TEAM	(408)942-6975-L	AMIS	San Jose, CA
ARMUDIC	(202)276-8342	ARMU	Washington, DC
FLEGL6	(212)598-0719-L	ARMU	New York, NY
GREKLCOM	(405)722-5056	ARMU	Oklahoma City, OK
PAGE	(412)655-3046	ARMU	Pittsburgh, PA
-	(808)833-2616	ATBBS	Honolulu, HI
-	(303)221-1779	TARI-BOARD	Denver, CO
-	(404)252-9438	TARI-BOARD	Atlanta, GA
CP/M	(313)759-6569-R	CBBS	Detroit, MI
CP/M	(215)398-3937	RBBS	Allentown, PA
CP/M	(312)789-0499	RBBS	Chicago, IL

AMIS stands for 'Atari Message and Information Service.'

R = Ring back means to let the phone ring once, hang up, count to 5 and redial.

L = Limited service (not up 24 hours per day).



PUT A LIGHT PEN ON YOUR ATARI

by Eric Radius

(Reprint from Waterloo ATARI Users Group newsletters)

Compute #27 gave instructions on building a light pen for the VIC-20. Since the two computers use the same controllers, I decided to try building one for my ATARI.

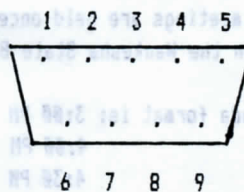
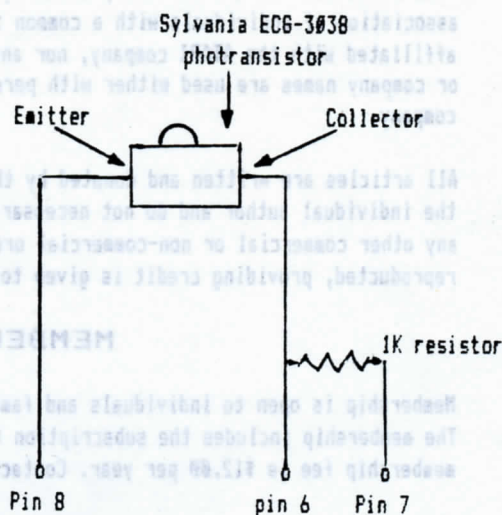
The light pen is read by peeking the horizontal color clock value (0-227) LPENH 564 and vertical color clock value (0-255) LPENV 565.

The light pen connects to pins 6, 7 & 8 of any controller port as in the drawing. In action a light applied to phototransistor ECG-3038 produces a negative pulse on pin 6. When this happens your computer checks the current location of the electron beam on the screen and stores the value in LPENH and LPENV.

Uses for a light pen include drawing lines, selecting menu items, multiple choice questions or games. The light pen constructed with these instructions works well enough for selecting menu items but needs some refinement for drawing.

Controller Jack
front view

- | | |
|-----------------------------|--------------------------|
| 1. (joystick) Forward input | 6. Trigger input |
| 2. (joystick) Back input | 7. +5 volts |
| 3. (joystick) Left input | 8. Ground |
| 4. (joystick) Right input | 9. A Potentiometer input |
| 5. B Potentiometer input | |



microcomputers



WAUKESHA

256 1/2 West Broadway
Waukesha, WI 53186
(414) 548-0700

The third Saturday of each month is *MilatariDAY* in the Milwaukee area - but every day is *MilatariDAY* at MICROCOMPUTERS & MAGIC.

Each month we run specials for Milatari members.

This month we are featuring:

Item	List price	MilatariDAY price
GORF by Roklan	\$39.95	\$34.95
Atari Assembler Editor	59.95	49.95
CENTIFEDE by Atari	44.95	34.95
Inside Atari DOS by Compute! (book)	19.95	13.95
PILOT by Atari	79.95	72.95
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MASTERTYPE by Lightning Software	39.95	34.95
All APX software (in stock)		15% off

Store hours: Tues-Fri 12noon - 9PM

Sat 9AM - 5PM

We are here to serve you

Greg -- Mary

Mike -- Rich

MILATARI NEWSLETTER

Milwaukee Area ATARI Users Group

This newsletter is written and printed by members of the Milwaukee Area ATARI Users Group (MILATARI), an association of individuals with a common interest in using and programming ATARI computers. MILATARI is not affiliated with the ATARI company, nor any other commercially oriented organizations. Any logos, trademarks or company names are used either with permission or as an informal method of referring to a product or company.

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MEMBERSHIP INFORMATION

Membership is open to individuals and families who are interested in using and programming ATARI computers. The membership includes the subscription to this newsletter and access to the user's library. The membership fee is \$12.00 per year. Contact Larry Leskovsek, Treas. at 542-0249 for more information.

MEETING INFORMATION

MILATARI meetings are held once monthly on the third Saturday. The meeting are held in the Community room located in the Waukesha State Bank building. The address is 110 Madison Street, Waukesha, Wis.

The agenda format is: 3:00 PM - Educational program
4:00 PM - Business meeting
4:30 PM - Feature presentation
5:30 PM - New program presentations

Milwaukee Area ATARI Users Group
c/o David Frazer
P.O. Box 1191
Waukesha, WI 53187-1191



Check out the MILATARI BULLETIN BOARD - phone 352-2772

COMPUTER FEST organized by MILATARI will held at Brookfield Square on March 4-5-6. Plan now to help - more information at this month's meeting